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| 09/866,245 | 05/25/2001 | Nanami Miki | 450100-03244 | 4576 |
| 20999 7590 07/21/2010 FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151 | | | | |
| EXAMINER | | | | |
| RAMAN, USHA | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/866,245

Applicant(s)

MIKI ET AL.

Examiner

USHA RAMAN

Art Unit

2424

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 6, 7, 9-15, 18, 21 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 7, 9-15, 18, 21 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SEA-3)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 22, 2010 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 11 and 23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 6, 9-13, 15, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US Pat. 6,133,909) in view of Hatakeyama et al. (US Pat. 5,469,354), Boyer et al. (US 7165098), Hendricks (US Pat. 5,798,785) and Erdelyi (US Pat. 6,631,522).

In regards to claim 1, Schein teaches an electronic program guide retrieval method (see column 1, lines 49-56) comprising the steps of:

Receiving an input retrieval keyword from a client side (see column 2, lines 18-23);

Accessing a EPG database to search program records based on an input retrieval keyword; (see column 13, lines 33-39) to retrieve query results related to the input retrieval keyword (col. 13, lines 36-43).

Schein fails to disclose that when an input retrieval keyword is input, at least one additional keyword is extracted from a dictionary database, and searching a plurality of databases, including a movie information database and a drama information database as a function of at least one extracted keyword and the input retrieval keyword.

In a field of query processing method, Hatakeyama discloses that when a user submits a search term (i.e. input retrieval keyword), the system expands the input keyword by consulting a synonym dictionary to extract at least one additional keyword as a function of input retrieval keyword (see col. 31, lines 24-52), wherein the expanded query comprising extracted additional keywords are supplied for searching. Accordingly Hatakeyama discloses searching using only additional keywords (i.e. searches the expanded query). Hatakeyama further discloses that the expanded query includes synonyms that are spelling variants of the input query (col. 31, lines 30-35).

In a further related art, Boyer further discloses that program guide databases can comprise a plurality of databases including program listing databases, movie databases, etc (col. 4, lines 55-64), wherein user may pre-designate a particular

database from among a plurality of databases (col. 1, lines 61-65, col. 11, lines 46-57, col. 12, lines 4-15 and fig. 7) and search for information from the particular database that is pre-selected. The search application accordingly issues search request for data to database server (col. 9, lines 38-40 and col. 6, lines 37-41), and therefore selects a route to the particular database based on pre-selection as a function of stored access information and path information. Boyer discloses that a plurality of databases for maintaining scheduling information can be provided (col. 4, lines 55-57). A user submits a search through a scheduling application on web server (col. 9, lines 38-40, col. 7, lines 16-18 and col. 6, lines 37-41), wherein the scheduling application on the web server in turn issues search request for data to the appropriate database (col. 6, lines 37-39, col. 20, lines 7-12) to obtain schedule information and provide the search results to the user (col. 20, lines 16-18). Since the web server issues database requests to obtain schedule information pertaining to a user query, the web server is the routing server which routes the request to the appropriate databases based on user's search. Such a web server comprises a path information (criteria can be programmed into request page code [0072]) and further comprises an access unit as it is able to access schedule information from the respective databases (transform user requests into SQL requests, i.e. database requests, [0102]) to which it is able to issue request [0112].

While Boyer is silent on a database for drama, Boyer discloses maintaining databases for different types of programming (e.g. television programming, movies, etc.). Furthermore, while Boyer discloses a plurality of databases, Boyer is silent on

the plurality of databases distributed at different locations, Erdelyi bears evidence that it was well known at the time of the invention to distribute databases at different locations (col. 24, lines 15-19). One of ordinary skill in the art would recognize that distributed database architecture provides increased reliability with modularity.

Hendricks is further evidence of a database storing program information on drama category of programs. Accordingly such a database comprises drama information. Col. 31, lines 36-39.

It would have been obvious to one of ordinary skill in the art to modify the query processing method of Schein with the teachings of Hatakeyama, and Boyer so that when a user enters a query, an expanded query maybe extracted from a synonym dictionary and using the expanded query for searching the database as a function of the input retrieval keyword, and searched in one of plurality of databases pre-designated by the user. Such a query processing method would yield closer matches based on keywords that are closely related to the input retrieval keyword and the desired programming type genre desired by the user. It would have been obvious to further employ data servers in a distributed arrangement located at different locations so that increased reliability and modularity of databases can be achieved. It would have been advantageous to one of ordinary skill in the art in view of Boyer and Hendricks' teachings by maintaining database for storing program information on drama type programs (i.e. a drama database) user can query the drama programming genre.

Claim 11 is an apparatus claim corresponding to the method claim 1, and is analyzed and rejected as previously discussed.

In regards to claim 23, Schein teaches an electronic program guide retrieval method (see column 1, lines 49-56) comprising the steps of:

Receiving an input retrieval keyword from a client side (see column 2, lines 18-23);

Accessing a EPG database to search program records based on an input retrieval keyword; (see column 13, lines 33-39) to retrieve query results related to the input retrieval keyword (col. 13, lines 36-43).

Schein fails to disclose that when an input retrieval keyword is input, at least one additional keyword is extracted from a dictionary database, and searching a plurality of databases, including a movie information database and a drama information database as a function of at least one extracted keyword and the input retrieval keyword.

In a field of query processing method, Hatakeyama discloses that when a user submits a search term (i.e. input retrieval keyword), the system expands the input keyword by consulting a synonym dictionary to extract at least one additional keyword as a function of input retrieval keyword (see col. 31, lines 24-52), wherein the expanded query comprising extracted additional keywords are supplied for searching. Accordingly Hatakeyama discloses searching using only additional keywords (i.e. searches the expanded query). Hatakeyama further discloses that

the expanded query includes synonyms that are spelling variants of the input query (col. 31, lines 30-35).

In a further related art, Boyer further discloses that program guide databases can comprise a plurality of databases including program listing databases, movie databases, etc (col. 4, lines 55-64), wherein user may pre-designate a particular database from among a plurality of databases (col. 1, lines 61-65, col. 11, lines 46-57, col. 12, lines 4-15 and fig. 7) and search for information from the particular database that is pre-selected. The search application accordingly issues search request for data to database server (col. 9, lines 38-40 and col. 6, lines 37-41), and therefore selects a route to the particular database based on pre-selection as a function of stored access information and path information. Boyer discloses that a plurality of databases for maintaining scheduling information can be provided (col. 4, lines 55-57). A user submits a search through a scheduling application on web server (col. 9, lines 38-40, col. 7, lines 16-18 and col. 6, lines 37-41), wherein the scheduling application on the web server in turn issues search request for data to the appropriate database (col. 6, lines 37-39, col. 20, lines 7-12) to obtain schedule information and provide the search results to the user (col. 20, lines 16-18). Since the web server issues database requests to obtain schedule information pertaining to a user query, the web server is the routing server which routes the request to the appropriate databases based on user's search. Such a web server comprises a path information (criteria can be programmed into request page code [0072]) and further comprises an access unit as it is able to access schedule information from

the respective databases (transform user requests into SQL requests, i.e. database requests, [0102]) to which it is able to issue request [0112].

While Boyer is silent on a database for drama, Boyer discloses maintaining databases for different types of programming (e.g. television programming, movies, etc.). Furthermore, while Boyer discloses a plurality of databases, Boyer is silent on the plurality of databases distributed at different locations, Erdelyi bears evidence that it was well known at the time of the invention to distribute databases at different locations (col. 24, lines 15-19). One of ordinary skill in the art would recognize that distributed database architecture provides increased reliability with modularity.

Hendricks is further evidence of a database storing program information on drama category of programs. Accordingly such a database comprises drama information. Col. 31, lines 36-39.

It would have been obvious to one of ordinary skill in the art to modify the query processing method of Schein with the teachings of Hatakeyama, and Boyer so that when a user enters a query, an expanded query maybe extracted from a synonym dictionary and using the expanded query for searching the database as a function of the input retrieval keyword, and searched in one of plurality of databases pre-designated by the user. Such a query processing method would yield closer matches based on keywords that are closely related to the input retrieval keyword and the desired programming type genre desired by the user. It would have been obvious to further employ data servers in a distributed arrangement located at different locations so that increased reliability and modularity of databases can be

achieved. It would have been advantageous to one of ordinary skill in the art in view of Boyer and Hendricks' teachings by maintaining database for storing program information on drama type programs (i.e. a drama database) user can query the drama programming genre.

As to claim 6, the modified system discloses wherein the retrieval keywords and the at least one extracted additional keyword are interrelated to each other by virtue of being synonyms. Accordingly, each and every limitation of claim 6 is taught by the combination of Schein in view of Hatakeyama, and Boyer.

As to claim 12, Schein's system contains a database, which could be located in the set-top box, television, or the like (i.e., client side see column 9, lines 21-36).

As to claim 13, the modified system further discloses a system containing a database, which could be accessed via the Internet (i.e., data server side), see Schein: column 8, lines 62-67 thru column 9, lines 1-9.

As to claim 15, the modified system further discloses where the client accesses a necessary part of the data server via a routing server storing information on routes to the parts of the data server (Boyer: col. 9, lines 38-40, col. 6, lines 37-41).

Applicant's claim 21 recites the EPG system of claim 11, wherein the program information includes data relevant to place names. As discussed above, the combination of Schein in view of Hatakeyama, and Boyer contains all limitations of claim 1. When searching an EPG database (Schein: column 1, lines. 49-56), a user may enter certain attributes (i.e., keywords, Schein: column 2, lines 18-23), which

retrieve information relevant to the entered keyword from the EPG database (Schein: column 12, lines 66-67 thru column 13, lines 1-20 & 33-48). Once the relevant information is retrieved, the user selects the desired EPG data (Schein: column 13, lines 33-48). The system is silent on that the program information retrieved can be relevant to place names. However since the modified system correlates an input retrieval keyword with an expanded retrieval keywords from a expander dictionary, it would have obvious to correlate certain type of program information with name with geographic names. For example, if a user enters "cowboys" as a keyword, it would be advantageous correlate it to Dallas Cowboys football game to be played in Texas. Accordingly it would have been obvious further include data relevant to place names in program information so that user can obtain programming information on programs associated with geographic places.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being patentable over Schein et al. (US Pat. 6,133,909) in view of in view of Hatakeyama et al. (US Pat. 5,469,354), Boyer et al. (US 7165098), Hendricks (US Pat. 5,798,785) and Erdelyi (US Pat. 6,631,522) as applied to claim 1, and further in view of Livowsky (US Pat. 6,598,030).

Applicant's claim 7 recites the EPG of claim 1, wherein when part of a retrieval keyword is entered, the entire keyword and the relevant-keyword information are retrieved from a database storing previously input keywords in a predetermined order. The modified system fails to disclose whether the system is capable of storing previously entered keywords in a predetermined order. However,

within the same field of endeavor, Livowsky discloses a method of searching a database, whereby the database "learns" from a user's past entries (i.e., keywords) and updates the database accordingly. (column 2, lines 26-33; column 8, lines 8-15). Therefore, it would have been obvious to one ordinarily skilled in this art at the time of applicant's invention to further modify the system with the "learning" capability of Livowsky's database in order to provide the user with a more expansive and flexible searching tool, which would be capable of updating the database.

6. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being patentable over Schein et al. (US Pat. 6,133,909) in view of Hatakeyama et al. (US Pat. 5,469,354), Boyer et al. (US 7165098), Hendricks (US Pat. 5,798,785) and Erdelyi (US Pat. 6,631,522) as applied to claim 1 and further in view of Huxley et al. (US Pat. 6,134,547)

Applicant's claim 9 recites the EPG of claim 1, the modified system is silent as to when the particular genre is relevant to cooking, while the different genre is relevant to cooks.

In an analogous art of program database query, Huxley discloses the method of tracking in a database person to their profession (e.g. actor, composer, etc.) and movie/programs. By relating the name to profession and credited work, a user can query the person by their name or profession or credited work obtain a match. Examiner further takes Official Notice that at the time of the invention, programs of cooking genre were well known in the art at the time of the invention and as such EPG contained program information of programs related cooking genre. It would have been obvious to one of ordinary skill in the art to further modify the system by

expanding the synonym dictionary to include all relational fields as taught by Huxley, so that the expanded query searches a particular show (e.g. cooking show) by all casts members (cooks) involved.

Applicant's claim 10 recites the EPG of claim 1, wherein modified system fails to disclose that the particular genre is relevant to place names; the different genre is relevant to names of persons.

In an analogous art of program database query, Huxley discloses an query method when a user types in a keyword such as 'John Williams', the related search retrieves additional keyword related to the person wherein the additional keyword includes an adjective related to place name (e.g. American Composer). Huxley additionally discloses that any keywords maybe used as an input retrieval keyword. Therefore there exists scenarios, wherein a user may enter "American composer" (i.e. input retrieval keyword genre has an adjective related to place names) and the retrieved keywords is names of people that are American composers.

It would have been obvious to one of ordinary skill in the art to further modify the system by correlating job profession with places and persons, thereby allowing a user to query profession by country and obtain a list of persons.

7. Claim 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US Pat. 6,133,909) in view of Hatakeyama et al. (US Pat. 5,469,354), Boyer et al. (US 7165098), Hendricks (US Pat. 5,798,785) and Erdelyi (US Pat. 6,631,522) as applied to claim 11 and further in view of Beach et al. (US Pre Grant Pub. 2003/0014753).

Applicant's claim 14 recites the EPG system of claim 11, wherein said client downloads and stores the program information. The modified system fails to teach whether the client is capable of downloading and storing program information. However, within the same field of endeavor, Beach further discloses the client unit is capable of downloading and storing program information. (Page 1, Par. (0018)). Therefore, it would have been obvious to one ordinarily skilled in this art at the time of applicant's invention to further modify the EPG system with the client side downloading/storing capability of Beach in order to provide the client with an efficient method of storing EPG programming.

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US Pat. 6,133,909) in view of Hatakeyama et al. (US Pat. 5,469,354), Boyer et al. (US 7165098), Hendricks (US Pat. 5,798,785) and Erdelyi (US Pat. 6,631,522) as applied to claim 11, and further in view of Lee et al. (US Pat. 6,463,428).

Applicant's claim 18 recites the EPG system of claim 11, wherein said dictionary database stores previously input keywords so that the input keywords are included in the relevant-keyword information, and the stored keywords are arranged in order of frequency of use. The modified system fails to teach the limitations of claim 18. However, within the same field of endeavor, Lee et al discloses a system capable of storing keywords and ranking them based upon their frequency of use (column 5, lines 8-16; column 15, lines 10-64; Fig. 18). Accordingly, it would have been obvious to one ordinarily skilled in this art at the time of applicant's invention to

further modify the system with the retrieval keyword storage capability of Lee et al in order to provide the user with a more efficient searching system.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to USHA RAMAN whose telephone number is (571)272-7380. The examiner can normally be reached on Mon-Fri: 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Annan Q Shang/
Primary Examiner, Art Unit 2424

/Usha Raman/

